

## AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, 4, 5, 6, 10, 15, 26, 27, 29, 31, 38, 39, 40, 50, 51, 53, and 54 as follows.

1. (Currently Amended) A method of managing electronic mail, the method comprising the computer-implemented steps of:  
automatically generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail messages received over a network;  
wherein the step of automatically generating ~~a set of~~certain criteria includes:  
automatically determining what particular content to use to ~~classify~~identify electronic mail messages as a first type of electronic mail message by performing steps that include determining that a threshold number of said plurality of electronic mail messages have a particular content; and  
in response to determining that a threshold number of said plurality of electronic mail messages have said particular content, generating one or more criteria that ~~classifies~~identifies electronic mail messages that have said particular content as ~~a~~the first type of electronic mail;  
receiving an electronic mail message over said network;  
determining whether said electronic mail message satisfies said ~~set of~~one or more criteria;  
if said electronic mail message satisfies said ~~set of~~one or more criteria, then processing said electronic mail message as said first type of electronic mail;  
if said electronic mail message does not satisfy said ~~set of~~one or more criteria, then processing said electronic mail message as a second type of electronic mail;  
wherein said first type of electronic mail is processed differently than said second type of electronic mail; and

wherein at least one message of said plurality of electronic mail messages has not been classified, before determining that a threshold number of said plurality of electronic mail messages have a particular content, as belonging to said first type.

2. (Currently Amended) The method of Claim 1 wherein:  
the method further comprises the step of generating a message signature for said electronic mail message based on contents of said electronic mail message; and  
the step of determining whether said electronic mail message satisfies ~~said set of one or more~~ criteria includes determining whether is based on said message signature ~~satisfies said set of criteria.~~

3. (Previously Presented) The method of Claim 1, wherein determining that a threshold number of said plurality of electronic mail messages have a particular content includes determining that at least a portion of each of said plurality of electronic mail messages have said particular content.

4. (Currently Amended) The method of Claim 1, wherein the step of generating a set of certain criteria based on contents of a plurality of electronic mail messages received over said network includes tracking how many message signature elements of said plurality of electronic mail messages match.

5. (Currently Amended) The method of Claim 1 wherein the step of generating a set of certain criteria based on contents of a plurality of electronic mail messages received over said network includes the steps of:

4 generating message signatures for each electronic mail message of said plurality of  
5 electronic mail messages, wherein each message signature includes one or more  
6 message signature elements; and  
7 counting how many of said one or more message signature elements match message  
8 signature elements from other message signatures.

1 6. (Currently Amended) The method of Claim 5 wherein the step of determining whether  
2 said electronic mail message satisfies said ~~set of~~ one or more criteria includes determining  
3 whether a message signature generated for said electronic mail message includes at least  
4 one message signature element that matches a threshold number of message signature  
5 elements of previously generated message signatures.

1 7. (Previously Presented) The method of Claim 6 wherein the step of determining whether a  
2 message signature generated for said electronic mail message includes at least one  
3 message signature element that matches a threshold number of message signature  
4 elements further includes determining whether a message signature generated for said  
5 electronic mail message includes at least one message signature element that matches a  
6 threshold number of message signature elements of previously generated message  
7 signatures that are associated with a period of time.

1 8. (Original) The method of Claim 1 wherein the step of processing said electronic mail  
2 message as a first type of electronic mail includes adding a bulk electronic mail flag to  
3 said electronic mail message.

9. (Original) The method of Claim 8, further including the steps of:  
 after processing said electronic mail message as a first type of electronic mail,  
 transmitting said electronic mail message to an electronic mail server;  
 said electronic mail server receiving said electronic mail message;  
 said electronic mail server determining whether said electronic mail message contains  
 said bulk electronic mail flag; and  
 if said electronic mail message contains said bulk electronic mail flag, then processing  
 said electronic mail message without further verifying whether said electronic  
 mail message is bulk electronic mail.

10. (Currently Amended) A method of managing electronic mail, the method comprising the  
 steps of:  
 a central server receiving from ~~ana~~ a set of electronic mail ~~server~~ servers a message  
 signature generated from an electronic mail message;  
 an electronic mail server determining whether said message signature satisfies a set of  
one or more criteria, wherein said set of one or more criteria is based on message  
 signatures previously received by said central server from ~~at~~ the set of electronic  
 mail servers;  
~~wherein said set of criteria classifies said electronic mail message and a threshold number~~  
~~of electronic mail messages as having a particular content;~~  
 if said received message signature satisfies ~~asaid~~ a set of one or more criteria, then said  
 electronic mail server processing said electronic mail message as ~~a~~ bulk electronic  
 mail ~~message~~; and

wherein the step of said electronic mail server determining whether said message signature satisfies a set of one or more criteria includes determining whether a portion of said message signature matches a portion of each of a threshold number of message signatures previously received by said central server from said set of electronic mail servers; and

wherein said threshold number of message signatures are generated from a plurality of electronic mail messages that include at least one message that has not been identified, as bulk electronic mail, before determining whether a portion of said message signature matches a portion of each of a threshold number of message signatures previously received by said central server from said set of electronic mail servers.

11. (Canceled)

12. (Previously Presented) The method of Claim 10, wherein:

the step of a central server receiving from an electronic mail server a message signature includes receiving a set of one or more values generated by a one-way hash function; and

the step of said electronic mail server determining whether a portion of said message signature matches includes determining whether at least one of said set of one or more values matches a threshold number of previously received values generated by a one-way hash function.

1 13. (Original) The method of Claim 12, the method further including the step of transmitting  
2 one or more messages to said electronic mail server specifying changes to one or more  
3 routines invoked by said electronic mail server to generate message signatures.

1 14. (Original) The method of Claim 13, wherein the step of transmitting one or more  
2 messages includes transmitting platform-independent byte code.

1 15. (Currently Amended) A method of managing electronic mail transmitted over a network,  
2 the method comprising the steps of:  
3 a central server receiving from a set of electronic mail servers certain message signatures  
4 generated from electronic mail messages received by said set of electronic mail  
5 servers, wherein each message signature of said certain message signatures  
6 includes one or more message signature elements;  
7 said central server generating counts of how many times said one or more message  
8 signature elements are matched by message signature elements from message  
9 signatures generated for other electronic mail messages; and  
10 said central server transmitting a message reflecting said counts.

1 16. (Previously Presented) The method of Claim 15, wherein:  
2 the step of a central server receiving includes receiving a particular recipient signature  
3 associated with a particular message signature; and  
4 the step of generating counts includes generating counts of how many times said one or  
5 more message signature elements match message signature elements that are:  
6 generated for other electronic mail messages, and

associated with a recipient signature that differs from said particular recipient signature.

17. (Original) The method of Claim 16, wherein the step of transmitting messages reflecting said counts includes transmitting said counts.

18. (Previously Presented) The method of Claim 16, wherein the step of transmitting messages reflecting said counts includes transmitting message signature elements associated with counts greater than a threshold.

19 - 25. (Canceled)

26. (Currently Amended) A computer-readable medium carrying one or more sequences of one or more instructions for managing electronic mail, wherein the execution of the one or more sequences of the one or more instructions causes the one or more processors to perform the steps of:

automatically generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail messages received over a network;

wherein the step of automatically generating ~~a set of~~certain criteria includes:

automatically determining what particular content to use to ~~classify~~identify electronic mail messages as a first type of electronic mail message by performing steps that include determining that a threshold number of said plurality of electronic mail messages have a particular content; and in response to determining that a threshold number of said plurality of electronic mail messages have a said particular content, generating one or more

criteria that ~~classifies~~identifies electronic mail messages that have said particular content as ~~a~~the first type of electronic mail; receiving an electronic mail message over said network; determining whether said electronic mail message satisfies said ~~set of~~one or more criteria; if said electronic mail message satisfies said ~~set of~~one or more criteria, then processing said electronic mail message as said first type of electronic mail; if said electronic mail message does not satisfy said ~~set of~~one or more criteria, then processing said electronic mail message as a second type of electronic mail; wherein said first type of electronic mail is processed differently than said second type of electronic mail; and wherein at least one message of said plurality of electronic mail messages has not been classified, before determining that a threshold number of said plurality of electronic mail messages have ~~said a~~a particular content, as belonging to said first type.

27. (Currently Amended) The computer-readable medium of Claim 26 wherein: the computer-readable medium further comprises sequences of instructions for performing the step of generating a message signature for said electronic mail message based on contents of said electronic mail message; and the step of determining whether said electronic mail message satisfies said ~~set of criteria~~ includes determining whether one or more is based on said message signature satisfies said set of criteria.



28. (Previously Presented) The computer-readable medium of Claim 26 wherein determining that a threshold number of said plurality of electronic mail messages have a particular content includes determining that at least a portion of each of said plurality of electronic mail messages have said particular content.

29. (Currently Amended) A computer-readable medium carrying one or more sequences of one or more instructions for managing electronic mail, wherein the execution of the one or more sequences of the one or more instructions causes the one or more processors to perform the steps of:

a central server receiving from ~~ana~~ a set of electronic mail ~~server~~ servers a message signature generated from an electronic mail message;

an electronic mail server determining whether said message signature satisfies a set of one or more criteria, wherein said set of one or more criteria is based on message signatures previously received by said central server from ~~at~~ the set of electronic mail servers;

~~wherein said set of criteria classifies said electronic mail message and a threshold number of electronic mail messages as having a particular content;~~

if said received message signature satisfies ~~a~~ said set of one or more criteria, then said electronic mail server processing said electronic mail message as ~~a~~ bulk electronic mail ~~message~~; and

wherein the step of said electronic mail server determining whether said message signature satisfies a set of one or more criteria includes determining whether a portion of said message signature matches a portion of each of a threshold number

19 of message signatures previously received by said central server from said set of  
 20 electronic mail servers; and  
 21 wherein said threshold number of message signatures are generated from a plurality  
 22 electronic mail messages that include at least one message that has not been  
 23 identified, as bulk electronic mail, before determining whether a portion of said  
 24 message signature matches a portion of each of a threshold number of message  
 25 signatures previously received by said central server from said set of electronic  
 26 mail servers.

1 30. (Canceled)

1 31. (Currently Amended) A computer-readable medium carrying one or more sequences of  
 2 one or more instructions for managing electronic mail, wherein the execution of the one  
 3 or more sequences of the one or more instructions causes the one or more processors to  
 4 perform the steps of:  
 5 a central server receiving from a set of electronic mail servers certain message signatures  
 6 generated from electronic mail messages received by said set of electronic mail  
 7 servers, wherein each message signature of said certain message signatures  
 8 includes one or more message signature elements;  
 9 said central server generating counts of how many times said one or more message  
 10 signature elements are matched by message signature elements from message  
 11 signatures generated for other electronic mail messages; and  
 12 said central server transmitting a message reflecting said counts.

1 32 – 37 (Canceled)

1 38. (Currently Amended) The computer-readable medium of Claim 26 wherein the step of  
 2 generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail  
 3 messages received over said network includes tracking how many message signature  
 4 elements of said plurality of electronic mail messages match.

1 39. (Currently Amended) The computer-readable medium of Claim 26 wherein the step of  
 2 generating ~~a set of~~certain criteria based on contents of a plurality of electronic mail  
 3 messages received over said network includes the steps of:  
 4 generating message signatures for each electronic mail message of said plurality of  
 5 electronic mail messages, wherein each message signature includes one or more  
 6 message signature elements; and  
 7 counting how many of said one or more message signature elements match message  
 8 signature elements from other message signatures.

1 40. (Currently Amended) The computer-readable medium of Claim 39 wherein the step of  
 2 determining whether said electronic mail message satisfies said ~~set of~~one or more criteria  
 3 includes determining whether a message signature generated for said electronic mail  
 4 message includes at least one message signature element that matches a threshold number  
 5 of message signature elements of previously generated message signatures.

1 41. (Previously Presented) The computer-readable medium of Claim 40 wherein the step of  
 2 determining whether a message signature generated for said electronic mail message  
 3 includes at least one message signature element that matches a threshold number of  
 4 message signature elements further includes determining whether a message signature

generated for said electronic mail message includes at least one message signature element that matches a threshold number of message signature elements of previously generated message signatures that are associated with a period of time.

42. (Previously Presented) The computer-readable medium of Claim 26 wherein the step of processing said electronic mail message as a first type of electronic mail includes adding a bulk electronic mail flag to said electronic mail message.

43. (Previously Presented) The computer-readable medium of Claim 42, the steps further including  
after processing said electronic mail message as a first type of electronic mail,  
transmitting said electronic mail message to an electronic mail server;  
said electronic mail server receiving said electronic mail message;  
said electronic mail server determining whether said electronic mail message contains  
said bulk electronic mail flag; and  
if said electronic mail message contains said bulk electronic mail flag, then processing  
said electronic mail message without further verifying whether said electronic  
mail message is bulk electronic mail.

44. (Previously Presented) The computer-readable medium of Claim 29, wherein:  
the step of a central server receiving from an electronic mail server a message signature  
includes receiving a set of one or more values generated by a one-way hash  
function; and

the step of said electronic mail server determining whether a portion of said message signature matches includes determining whether at least one of said set of one or more values matches a threshold number of previously received values generated by a one-way hash function.

45. (Previously Presented) The computer-readable medium of Claim 44, the steps further including the step of transmitting one or more messages to said electronic mail server specifying changes to one or more routines invoked by said electronic mail server to generate message signatures.

46. (Previously Presented) The computer-readable medium of Claim 45, wherein the step of transmitting one or more messages includes transmitting platform-independent byte code.

47. (Previously Presented) The computer-readable medium of Claim 31, wherein:  
the step of a central server receiving includes receiving a particular recipient signature associated with a particular message signature; and  
the step of generating counts includes generating counts of how many times said one or more message signature elements match message signature elements that are:  
generated for other electronic mail messages, and  
associated with a recipient signature that differs from said particular recipient signature.

48. (Previously Presented) The computer-readable medium of Claim 47, wherein the step of transmitting messages reflecting said counts includes transmitting said counts.

49. (Previously Presented) The computer-readable medium of Claim 47, wherein the step of transmitting messages reflecting said counts includes transmitting message signature elements associated with counts greater than a threshold.

50. (Currently Amended) A method of managing electronic mail, the method comprising the computer-implemented steps of:

automatically generating ~~a set of~~ certain criteria based on contents of a plurality of electronic mail messages received over a network;

wherein the step of automatically generating ~~a set of~~ certain criteria includes, in response to determining that a threshold number of said plurality of electronic mail messages have a particular content, generating one or more criteria that classifies electronic mail messages that have said particular content as a first type of electronic mail;

receiving an electronic mail message over said network;

determining whether said electronic mail message satisfies said ~~set of~~ one or more criteria;

if said electronic mail message satisfies said ~~set of~~ one or more criteria, then processing said electronic mail message as said first type of electronic mail;

if said electronic mail message does not satisfy said ~~set of~~ one or more criteria, then processing said electronic mail message as a second type of electronic mail;

wherein said first type of electronic mail is processed differently than said second type of electronic mail; ~~and~~

wherein the step of ~~generating a set~~ determining that a threshold number of criteria based on contents of a said plurality of electronic mail messages received over said network have a particular content includes the steps of:

21 generating message signatures for each electronic mail message of said plurality  
 22 of electronic mail messages, wherein each message signature includes one  
 23 or more signature elements; and  
 24 counting how many of said one or more signature elements match signature  
 25 elements from other message signatures.

1 51. (Currently Amended) The method of Claim 50 wherein the step of determining whether  
 2 said electronic mail message satisfies said ~~set of~~ one or more criteria includes determining  
 3 whether a message signature generated for said electronic mail message includes at least  
 4 one signature element that matches a threshold number of signature elements of  
 5 previously generated message signatures.

1 52. (Previously Presented) The method of Claim 51 wherein the step of determining whether  
 2 a message signature generated for said electronic mail message includes at least one  
 3 signature element that matches a threshold number of signature elements further includes  
 4 determining whether a message signature generated for said electronic mail message  
 5 includes at least one signature element that matches a threshold number of signature  
 6 elements of previously generated message signatures that are associated with a period of  
 7 time.

1 53. (Currently Amended) A computer-readable medium carrying one or more sequences of  
 2 one or more instructions for managing electronic mail, wherein the execution of the one  
 3 or more sequences of the one or more instructions causes the one or more processors to  
 4 perform the steps of:

5 automatically generating ~~a set of~~certain criteria based on contents of a plurality of  
6 electronic mail messages received over a network;  
7 wherein the step of automatically generating ~~a set of~~certain criteria includes, in response  
8 to determining that a threshold number of said plurality of electronic mail  
9 messages have a particular content, generating one or more criteria that classifies  
10 electronic mail messages that have said particular content as a first type of  
11 electronic mail;  
12 receiving an electronic mail message over said network;  
13 determining whether said electronic mail message satisfies said ~~set of~~one or more criteria;  
14 if said electronic mail message satisfies said ~~set of~~one or more criteria, then processing  
15 said electronic mail message as said first type of electronic mail;  
16 if said electronic mail message does not satisfy said ~~set of~~one or more criteria, then  
17 processing said electronic mail message as a second type of electronic mail;  
18 wherein said first type of electronic mail is processed differently than said second type of  
19 electronic mail;~~and~~  
20 wherein the step of ~~generating a set~~determining that a threshold number of ~~criteria based~~  
21 ~~on contents of a~~said plurality of electronic mail messages ~~received over said~~  
22 ~~network~~have a particular content includes the steps of:  
23 generating message signatures for each electronic mail message of said plurality  
24 of electronic mail messages, wherein each message signature includes one  
25 or more signature elements; and  
26 counting how many of said one or more signature elements match signature  
27 elements from other message signatures.



1 54. (Currently Amended) The computer-readable medium of Claim 53 wherein the step of  
2 determining whether said electronic mail message satisfies said ~~set of~~one or more criteria  
3 includes determining whether a message signature generated for said electronic mail  
4 message includes at least one signature element that matches a threshold number of  
5 signature elements of previously generated message signatures.

1 55. (Previously Presented) The computer-readable medium of Claim 54 wherein the step of  
2 determining whether a message signature generated for said electronic mail message  
3 includes at least one signature element that matches a threshold number of signature  
4 elements further includes determining whether a message signature generated for said  
5 electronic mail message includes at least one signature element that matches a threshold  
6 number of signature elements of previously generated message signatures that are  
7 associated with a period of time.